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Etching	Surface Shape of Second Transparent			I_{220}/I_{111}	
Time	Conductive Layer				*
(sec.)	Hole	Hole			
Other	Diameter	Depth		•	
Forming	(nm)	(nm)	Hole (nm)		
Condition				than Hole	
				(nm)	
180	200-	80 –	10 - 280	<10	3
	1400	1000	Average		
			120		
240	400-	100 -	20 – 200	20 – 40	3
	1000	700	Average		
			150		
240	400-	100 -	20 - 200	20 – 40	5.5
	1000	700	Average		
	_		150		
180	200-	80 –	20 - 280	20 – 50	3
ZnO /	1400	1000	Average		
ZnO			130		
	400-	100 -	30 – 120	30 –120	3
	1000	700	Average		į
			80		
ZnO				Average	1.5
/SnO ₂				150	
60	50-200	10 -	<10	<10	3
		100			
	800-	700-	150 – 500	150 – 500	1.4
	3000	2000	Average		
			350		
	Time (sec.) Other Forming Condition 180 240 240 180 ZnO / ZnO ZnO /SnO ₂	Time (sec.) Other Forming Condition 180 200- 1400 240 400- 1000 240 400- 1000 180 200- 1400 270 1400 400- 1000 ZnO 400- 1000 ZnO 400- 1000 800-	Time (sec.) Other Forming Condition 180	Time (sec.) Other Forming Condition 180 200- 1400 1000 240 400- 1000 100- 1000 240 400- 1000 700 Average 150 240 200- 200- 200- 200- 200- 200- 20	Time (sec.) Other Forming Condition 180

^{*:} Orientation of crystalline silicon photoelectric conversion layer

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Please replace the paragraph beginning at page 32, line 7, with the following rewritten paragraph/s:

A multi-junction type thin-film solar cell of a super-straight type in this Example has substantially the same structure as that shown in Fig. 5. This thin-film solar cell has a substrate for a thin-film solar cell comprising a glass plate and a first transparent conductive layer formed thereon. Formed on this substrate are an amorphous silicon photoelectric conversion layer 27, second transparent conductive layer 11c, crystalline silicon photoelectric conversion layer 37, back surface reflecting layer 15 and back surface electrode 16 in this order. Formed on each surface of the first and second transparent conductive layers are a great number of holes each having approximately a sphere shape and reaching not to the glass plate 11a like the Example 1. The amorphous silicon photoelectric conversion layer 27 is made of a p-type amorphous silicon layer 12a, i-type amorphous silicon layer 13a and n-type amorphous silicon layer 14a, and the crystalline silicon photoelectric conversion layer 37 is made of a p-type crystalline silicon layer 14b.

Please replace Table 3 beginning at page 43, line 5, with the following new Table

3:

Table 3

Table 3	,					
	Etching	Surface	I_{220}/I_{111}			
	Time	Conductive Layer				*
	(sec.)	Hole	Hole	Irregularity	Irregular	
	Other	diameter	Depth	Size on	ity Size	
	Forming	(nm)	(nm)	Hole (nm)	on other	
	Condition				than	
					Hole(nm)	
Ex 6	200	200-	80 –	10 – 280	<10	3
		1400	1000	Average		
				120		
Ex 7	280	400-	100 ~	20 – 200	20 – 40	3
		1400	700	Average		
				` 150		
Ex 8	280	400-	100 –	10 – 200	20 – 40	5.5
		1400	700	Average		
				150		
Ex 9	200	200-	80 –	20 - 280	20 – 50	3
	ZnO/	1400	1000	Average		
	ZnO			130		
Ex 10		400-	100 –	30 – 120	30 – 120	3
		1000	700	Average 80		
Co Ex	ZnO/			. 	Average	1.5
4	SnO_2				100	
Co Ex	80	50-200	10 -	<10	<10	3
5			100	_		
Co Ex	200	200-	80 –	10 – 280	<10	3
6	i- layer**	1400	1000	Average		
	100nm			120		
Co Ex	200	200-	80 –	10 - 280	<10	3
7	i- layer**	1400	1000	Average		
	500nm			100		
Co Ex		800-	700-	150 – 500	150 – 500	1.4
8		3000	2000	Average		
				350		

^{* :} Orientation of crystalline silicon photoelectric conversion layer ** i-layer : i-type amorphous silicon layer